Air Quality Permitting
Statement of Basis

May 5, 2006

Permit to Construct No. P-050038

NxEdge Inc. of Boise
Boise, ID

Facility ID No. 001-00202

Prepared by:

NRD

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Technical Services Division

FINAL

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Acronyms, Units, and Chemical Nomenclatures

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
Btu	British thermal unit
CO	carbon monoxide
EPA	U.S. Environmental Protection Agency
HAPs	Hazardous Air Pollutants
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb	pound
MMBtu	million British thermal units
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOx	nitrogen oxides
NSPS	New Source Performance Standards
O_3	ozone
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
SIP	State Implementation Plan
SM	Synthetic Minor
SO_2	sulfur dioxide
T/yr	tons per year
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, for issuing permits to construct.

2. FACILITY DESCRIPTION

NxEdge Inc. of Boise (NxEdge) fabricates, refurbishes, and provides coatings for metal products used in the semiconductor and other related industries. The three major process areas within NxEdge are the following: engineered coatings, plasma and wire arc spray, and Semiconductor Business Unit (SBU) parts coating plasma spray area. All three of these process areas are sources of emissions.

2.1 Engineered Coatings Process

The engineered coatings process consists of four spray application booths equipped with overspray arrestors and exhaust fans, two electrically-fired curing ovens, one 0.6 MMBtu/hr natural gas-fired curing oven, and three suction/pressure media blasters:

- One of the spray booths is used to apply wet coatings. The three remaining spray booths are used to apply dry powder coatings.
- The ovens are used to cure powder coated products.
- The media blasters are used to prepare aluminum and stainless steel parts for coating. Two of the media blasters, Media Blasters #1 and #2, vent to atmosphere through emission point CAMBR. The third vents back into the building.

2.2 Plasma and Wire Arc Spray Process

The plasma and wire arc spray process coats small parts, and preps, coats, and finishes stainless steel tubes in a series steps. The steps are performed in the following process areas: Gen 3 Chamber, Gen 4 Chamber, Gen 5 Chamber, Plasma Coating Room, Tube Finishing Box, Tube Blasting and Wire Bonding, and Vibratory Screen.

2.3 SBU Parts Coating Plasma Spray Area Process

The SBU parts coating plasma spray area process coats metal parts using a robotic spray process that uses compressed air to transfer powder coating material from automated hoppers to a hot gas stream that deposits it onto parts. The process consists of three automated spray rooms (SBUFARR1, SBUFARR2, SBUFARR3) each equipped with an air supply system, a robotic plasma spray arm for coating parts, and air pollution control equipment.

3. FACILITY / AREA CLASSIFICATION

NxEdge is defined as a *synthetic minor facility* because, without permit limits on the potential to emit, the PM_{10} emissions would exceed 100 tons per year. The AIRS classification is *SM* because the potential to emit of PM_{10} is limited to less than major source levels.

The facility is located within AQCR 64 and UTM zone 11, in Ada County, which is designated as *attainment* for PM_{10} and *unclassifiable* for all other criteria pollutants (CO, NO_x, SO_2, lead, and ozone).

The AIRS information provided in Appendix A defines the classification for each regulated air pollutant at NxEdge. This required information is entered into the EPA AIRS database.

4. APPLICATION SCOPE

The application materials, received August 18, 2005, and October 21, 2005, request a correction to the name of the permittee, permit condition 3.3, and permit condition 3.5. In addition, an update to the

facility contact and responsible official has been requested. Only these actions will be addressed in this Statement of Basis. For information on other permit conditions, please see the Statement of Basis dated July 7, 2005.

4.1 Application Chronology

August 18, 2005	Received letter requesting correction to facility name and update to facility contact and responsible official
October 21, 2005	Received letter requesting correction to permit conditions 3.3 and 3.5

5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this PTC action:

5.1 Equipment Listing

See the Statement of Basis dated July 7, 2005.

5.2 Emissions Inventory

See the Statement of Basis dated July 7, 2005.

5.3 Modeling

See the Statement of Basis dated July 7, 2005.

5.4 Regulatory Review

This section describes the regulatory analysis of the applicable air quality rules with respect to this PTC.

IDAPA 58.01.01.209.04 Revisions of PTCs

NxEdge Inc. of Boise meets the definition of continuing to meet all applicable requirements of Sections 200 through 228 and not resulting in an increase in emissions.

IDAPA 58.01.01.224 Permit to Construct Application Fee

The applicant is not eligible for the PTC application fee requirement due to the nature of the permitting action.

IDAPA 58.01.01.225 Permit to Construct Processing Fee

The applicant is not eligible for the PTC processing fee requirement due to the nature of the permitting action.

5.5 Permit Conditions Review

This section describes only those permit conditions that have been revised, modified, or deleted as a result of this permit action. All other permit conditions remain unchanged.

1.1 Language describing this as a new permitting action was removed.

1.2 This condition was added to add clarification to the purpose of this permitting action.

3.3 In review of the emissions inventory used for the modeling analysis summarized in the July 7, 2005, Statement of Basis, the pound per hour PM_{10} limit for PLGEN5, Gen Chamber 5 is 1.85E-01. Therefore the pound per day limit should be 1.85E-01 lb/hour * 24 hours/day = 4.4 lbs/day. The limit was corrected from 2 lb/day to 4.4 lb/day.

3.5 The regulatory standard for nickel in 58.01.01.586 is given in *pounds per year*. P-04007 limited emissions to 0.17 lb/**day** when the limit should have been 0.17 lb/**year**. Further review of the emissions inventory was not warranted due to the nature of the error; the equivalent numerical value being changed from pounds per day to pounds per year is not an increase in emissions.

6. PERMIT FEES

The applicant is not eligible for the PTC permitting fees requirements due to the nature of the permitting action. This permitting action corrects typographical errors and includes a name change. Both actions are exempt from permitting fees.

7. PERMIT REVIEW

7.1 Facility Review of Draft Permit

Facility review of draft permit was not requested.

7.2 Public Comment

In accordance with IDAPA 58.01.01.209.04, an opportunity for public comment period on the PTC application was not required.

8. RECOMMENDATION

Based on review of application materials, and all applicable state and federal rules and regulations, staff recommends that NxEdge, Inc. of Boise be issued a final PTC No. 001-00202 to update and correct their existing permit. No public comment period is recommended, no entity has requested a comment period, and the project does not involve PSD requirements.

NBD/bf Permit No. P-050038

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Appendix A

AIRS Information

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AIRS/AFS[a] FACILITY-WIDE CLASSIFICATION[b] DATA ENTRY FORM

Facility Name: NxEdge Inc. of Boise
Facility Location: Boise, Idaho
AIRS Number: 001-00202

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment
SO_2	B							U
NO_x	B							U
CO	B							U
PM_{10}	SM						SM	U
PT (Particulate)	SM						SM	U
VOC	B							U
THAP (Total HAPs)	B							U
			APPLICABLE SUBPART					

[a] Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

[b] AIRS/AFS Classification Codes:

A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, or each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.

SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.

B = Actual and potential emissions below all applicable major source thresholds.

C = Class is unknown.

ND = Major source thresholds are not defined (e.g., radionuclides)